Name: Period: Date:

**Water Consumption Calculation KEY**

**Collect data for 4 days**

Water Consumption

* Washing hands
  + Day 1 – 15 X 4 = 60 gallons = 60 gallons
  + Day 2 – 20 X 4 gallons = 80 gallons
  + Day 3 – 13 X 4 gallons = 52
  + Day 4 –22 X 4 gallons = 88 gallons
    - * TOTAL DRINKING WATER = 280 gallons
* Flushing toilet
  + 1 flush = 5 gallons
    - Day 1 – 6 X 5 = 30 gallons
    - Day 2 – 11 X 5 = 55 gallons
    - Day 3 – 5 X 5 = 25 gallons
    - Day 4 – 6 X 5 = 30 gallons
      * TOTAL FLUSHING TOILET = 140 gallons
* Brushing teeth
  + Water running slightly = 2 gallons
    - Day 1 – 2 brushes X 2 gallons = 4 gallons
    - Day 2 – 2 brushes X 2 gallons = 4 gallons
    - Day 3 – 2 brushes X 2 gallons = 4 gallons
    - Day 4 – 2 brushes X 2 gallons = 4 gallons
      * TOTAL BRUSHING TEETH = 16 gallons
* Load of laundry
  + 1 load = 40 gallons/number of people in household
    - Day 1 – 2 loads X 40 gallons = 80 gallons/3 people = 26.7 gal.
    - Day 2
    - Day 3 – 2 loads X 40 gallons = 80 gallons/3 people = 26.7 gal.
    - Day 4
      * TOTAL LOAD OF LAUNDRY = 53.4 gallons
* Shower/bath
  + 5 gallons per minute
    - Day 1 – 8 minutes X 5 gallons = 40 gallons
    - Day 2 – 7 minutes X 5 gallons = 35 gallons
    - Day 3 – 7 minutes X 5 gallons = 35 gallons
    - Day 4 – 8 minutes X 5 gallons = 40 gallons
      * TOTAL SHOWER/BATH = 150 gallons
* Dishwasher
  + 1 load = 20 gallons/number of people in household
    - Day 1 – none
    - Day 2 – none
    - Day 3 – 1 load (20 gallons)/3 people = 6.7 gallons
    - Day 4 – none
      * TOTAL DISHWASHER = 6.7 gallons
* Dishwashing by hand
  + Water in sink with stopper to wash (10 gallons/number of people in household)
  + Water running to rinse (30 gallons/number of people in household)
    - Day 1 – 1 load to wash (10 gallons)/3 people = 3.3 gallons; 1 load to rinse (30 gallons)/3 people = 10 gallons; 3.3 + 10 = 13.3 gallons
    - Day 2 -- 1 load to wash (10 gallons)/3 people = 3.3 gallons; 1 load to rinse (30 gallons)/3 people = 10 gallons; 3.3 + 10 = 13.3 gallons
    - Day 3 – none
    - Day 4 -- 1 load to wash (10 gallons)/3 people = 3.3 gallons; 1 load to rinse (30 gallons)/3 people = 10 gallons; 3.3 + 10 = 13.3 gallons
      * TOTAL DISHWASHING = 39.9 gallons

TOTAL WATER CONSUMPTION = 280 + 140 + 16 + 53.4 + 150 + 6.7 + 39.9 =

686 gallons

Your total x number of people in your household = 686 X 3 = 2058 gallons

Your total x 7.2 billion people (world population) = 686 X 7.2 billion = 4,939,200,000 gallons

**GRADING FOR WATER CALCULATION CONSUMPTION:**

Data collected for four (4) days = 25 points

* Tallies, slash marks or numbers included

All WORK shown = 75 points

* (20) Totals per day
* (40) Totals for each section
* (5) Total for personal water usage
* (5) Total for household usage
* (5) Total for world population usage